

Pre AP Limiting reagent Stoichiometry Review

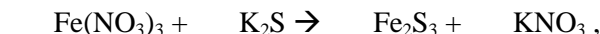
1. Convert 6.63 moles of $C_6H_{12}O_6$ to grams.

- a) 159.12 grams
- b) 596.7 grams
- c) 1193.4 grams
- d) 0.037 grams
- e) 27.15 grams

2. What is the molar mass of $NaHCO_3$?

- a) 64 g/mol
- b) 48 g/molecules
- c) 52 g/mol
- d) 52 g/molecules
- e) 84 g/mol

3. For the following reaction:



- a) If 21.70 g of $Fe(NO_3)_3$ reacts with 3.84 g of K_2S , how many grams of Fe_2S_3 should be produced?

(MM: K_2S = 110.3 g/mol, $Fe(NO_3)_3$ = 241.9 g/mol, Fe_2S_3 = 207.9 g/mol)

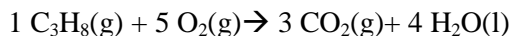
2.41g Fe_2S_3

- b) Name all of the species in the reaction

4. What is a limiting Reagent?

5. How would you find amount of none limiting reagent that remains?

Problems 6-8 use the equation below:



(MM C_3H_8 = 44g/mol, O_2 = 32g/mol, CO_2 = 44g/mol, H_2O = 18g/mol)

6. When 3.0g of C_3H_8 reacts with 5.0g of O_2 what is the limiting reagent?

O_2

7. How much of the non-limiting reagent remains after the reaction?

1.625g C_3H_8 remaining

8. What number of oxygen atoms is used to make the CO_2 gas produced?

1.88×10^{32} Atoms of O_2